

AMENDMENTS TO THE SPECIFICATION

Applicants respectfully request that the specification of the present application be amended as follows. No new matter is introduced by these amendments and their entry is respectfully requested.

Please add the following paragraph at the very beginning of specification, before “**Field of Invention.**”

Related Application

This application claims the benefit of U.S. Provisional Application Serial Number 60/223,663 filed August 7, 2001, which is hereby incorporated herein by reference.

Please amend paragraph [0015] to add a comma, as follows:

The system creates three-dimensional parallax depth cues by presenting each eye with a view of the object from a different perspective. Conventional three-dimensional viewing methods rely upon special viewing devices such as goggles and special viewing glasses to channel the light to the appropriate eye. The system of the current invention, however, utilizes a novel right-left visual field multiplexed waveguide hologram to channel the light to either the right or left eye within the system, thereby eliminating the need for external viewing devices.

Please amend paragraph [0016] as follows:

A novel right-left visual field multiplexing waveguide hologram master for use in the viewing system is formed through a recording process utilizing a combination of a photolithographic mask and a view region mask in conjunction with a waveguide holographic recording involving an object beam and a reference beam in a waveguide propagation mode. The multiplexed waveguide hologram recording process comprises a two step process; a first holographic recording corresponding to a first eye viewing zone is formed, and then a second holographic recording corresponding to the second eye viewing zone is formed. The multiplexed ~~master~~ waveguide hologram master is then used to form holographic contact copies that provide a cost-effective method of transforming a conventional LCD display into an autostereoscopic 3D HLCD display system. An important aspect of this invention is that the waveguide hologram provides a means to keep unwanted light from being seen by the viewer.

Please amend paragraph [0044] as follows:

The second hologram 18 or the right -left interlaced hologram master is formed through the following process. As shown in FIG. 5 a holographic plate or substrate 36 is coated with a photosensitive emulsion 38, preferably silver halide. The coated substrate 36 is then mounted onto a gray glass plate holder 40 so that the emulsion layer 38 is facing ~~away from~~ toward the gray glass plate holder 40. The exposed side of the ~~emulsion layer-coated substrate 36~~ is then coated with an indexing fluid 42[[44]] such as ISOPAR®.

Please amend paragraph [0045] as follows:

A photolithographic mask 44 is placed over the emulsion layer 38 coated with indexing fluid 42[[44]] prior to recording. The mask 44[[46]] provides a series of equally spaced lines. Each line having a width equal to the width of a standard LCD pixel, preferably between 200 to 300 microns. For example, if the odd number lines are black 48 and the even number lines are clear 50, the odd number lines act as a mask, blocking holographic recording under the odd numbered lines of the mask 48.

Please amend paragraph [0053] as follows:

The holographic recordings are formed through a two-beam recording process as shown in FIG. 5. The first holographic recording is formed by passing the object beam through the view region mask diffuser 56 positioned at a distance equal to the ~~systems~~ system's desired playback distance and then through the photolithographic mask 44. The reference beam passes through the photolithographic mask 44 at an angle equal to the reference angle used to record the first hologram, preferably between 45-50 degrees off horizontal. The photolithographic mask 44 and the view region mask 56 are then shifted from the first position to the second and the recording is repeated to form the second holographic recording.

Please amend the “**Abstract**” as follows:

The invention is directed to an autostereoscopic three-dimensional liquid crystal display system and a method of making the system. The system ~~comprises~~ includes a collimated backlight, a first light diffracting hologram, a second right-left interlacing hologram and a liquid

crystal display. If the backlight is not collimated, a micro-collimator array is used to collimate the backlight prior to passing into the first hologram. The second right-left interlacing hologram is formed through a two step process. The process comprises positioning a photolithographic mask and a view region mask in a first position, recording the first holographic recording in the first position, shifting the photolithographic mask and the view region mask to a second position and recording the second holographic recording in the second position.